

CLAIMS

1. A biometric key having a key body incorporating a biometric sensor for transmission of a signal representing a biocode of data generated by the biometric sensor, said key body in use engageable with a
5 receptor body for interaction with the key body to forward the signal to processing means for granting access to an authorised user to a facility accessible by the biometric key.
2. A biometric key as claimed in claim 1, wherein the key body has one or more electrical contact(s) which, in use, touch mating
10 contact(s), of the receptor body.
3. A biometric key as claimed in claim 1, wherein the sensor is surrounded by an insulator in the key body.
4. A biometric key as claimed in claim 3, wherein the insulator is insertable into a slot of the key body and attached thereto.
- 15 5. A biometric key as claimed in claim 3, wherein the insulator is slidably attached to the key body and bonded thereto.
6. A biometric key as claimed in claim 3, 4 or 5, wherein the biometric sensor is accommodated within a mating recess in the insulator.
7. A biometric key as claimed in any one of claims 2-6,
20 wherein the key body incorporates a circuit board engaging with said one or more contacts.
8. A biometric key as claimed in claim 3, wherein key body incorporates a circuit board engaging with said one or more contacts, said circuit board being accommodated within a cavity of the insulator adjacent

the biometric key.

9. A biometric key as claimed in claim 8, wherein the circuit board at one end has contact traces or wire leads which engage with corresponding contact traces of an adjacent end of the biometric sensor.

5 10. A biometric key as claimed in claim 9, wherein the insulator incorporates a plurality of contact portals in contact with corresponding contacts or wire leads of the circuit board.

10 11. A biometric key as claimed in any one of claims 2-10, wherein the or each contact is at least partly surrounded by an insulator sleeve.

12. A biometric key as claimed in claim 11, wherein the, or each insulator sleeve is aligned normally to a longitudinal axis of the key body.

15 13. A biometric key as claimed in any preceding claim, wherein the key body has a handle or gripping part incorporating the biometric sensor and a blade portion.

14. A biometric key as claimed in claim 13, wherein the blade portion has a plurality of wards.

20 15. A biometric key as claimed in any one of claims 1-13, wherein the blade portion is plate like in shape not incorporating wards, for insertion into a slot of the receptor body.

16. A biometric key as claimed in claim 11 or 12, wherein each contact comprises a pair of contact pins located in accommodating insulator sleeves, wherein each contact pin is separated by the circuit board.

17. A biometric key as claimed in any preceding claim, wherein the key body incorporates a smart chip.

18. A biometric key as claimed in claim 1, wherein the key body has a transmitter for interaction with a receiver of the receptor body for
5 transmission of the signal.

19. A biometric key substantially as herein described with reference to the accompanying drawings.

20. A receptor body engageable with a biometric key, said biometric key having a key body incorporating a biometric sensor for
10 transmission of a signal representing a biocode of data generated by the biometric sensor, wherein said receptor body interacts with the key body to forward the signal to processing means for granting access to an authorised user to a facility accessible by the biometric key.

21. A receptor body as claimed in claim 20, wherein the
15 receptor body has one or more electrical contacts, which in use, touch mating contact(s) of the biometric key for forwarding of the signal to the processing means.

22. A reader as claimed in claim 21, wherein the receptor body is a mechanical lock body engageable with the biometric key, which
20 key has a blade portion with a plurality of wards which engage with corresponding tumblers in the lock body.

23. A receptor body as claimed in claim 22, wherein the lock body includes a barrel having said tumblers and also a plurality of contacts as well as a lock cylinder for engagement with the barrel, which lock cylinder

has a plurality of contact portals for touching corresponding contacts of the barrel.

24. A receptor body as claimed in any one of claims 20-23, which incorporates an internal processing unit, which corresponds to said
5 processing means.

25. A receptor body as claimed in claim 24, wherein the internal processing unit has an interface with an external processor or computer for enrolment of biometric data.

26. A receptor body as claimed in claim 22, wherein after
10 analysis of the signal by the processing means, access to the facility is provided by activation of a linear motor or solenoid of a lock cylinder located within the lock body, which is in electrical connection with the processing means, wherein said linear motor or solenoid is actuated to rotate a locking pin within the lock body to facilitate unlocking of the lock body.

27. A receptor body as claimed in claim 26, wherein the
15 rotation of the locking pin causes corresponding rotation of a barrel engageable with the lock cylinder.

28. A receptor body as claimed in claim 20, 21, 24 or 25, which has a slot engageable with a blade portion of the biometric key,
20 wherein said blade portion does not incorporate wards.

29. A receptor body as claimed in any one of claims 20-28, wherein each of the contacts contained therein are spring biased to a position in abutment with a corresponding contact pin of the biometric key body.

30. A receptor body as claimed in claim 29, wherein each of the contacts contained therein are normal to a longitudinal axis of the biometric key in use

31. A receptor body as claimed in claim 29, wherein each of
5 the contacts are accommodated within an insulator.

32. A receptor body as claimed in claim 31, wherein within each insulator there are provided an inner contact for touching corresponding contacts of the biometric key in use and an outer contact separated from an adjacent inner contact by a spring.

10 33. A receptor body as claimed in any one of claims 20-32, wherein there is incorporated an indicator means indicating validation or rejection of biometric data generated by the sensor.

34. A receptor body as claimed in claim 31, wherein the indicator means is a light emitting diode.

15 35. A receptor body as claimed in claim 26, which incorporates a receiver for interaction with a transmitter of the key body for transmission of the signal.

36. A security system for use with a facility to prevent unauthorised access to the facility, which includes:

20 (a) a biometric key having a key body incorporating a biometric sensor for transmission of a signal representing a biocode of data generated by the biometric sensor; and

(b) a receptor body engageable with the biometric key, wherein said receptor body upon engagement with the key body

interacts with the key body to forward the signal to processing means associated with the receptor body for granting access to the facility to an authorised user.

37. A security system as claimed in claim 36, wherein the key
5 body has one or more electrical contacts, which touch mating contact(s), when forwarding said signal.

38. A method for providing access to a facility which includes the steps of:

(i) inserting a key having a biometric sensor into a receptor
10 body, whereby upon engagement of the key with the receptor body a signal representing a biocode of data generated by the biometric sensor is forwarded to processing means;

(ii) matching the biocode with a database associated with the processing means to permit validation of the biocode; and

15 (iii) providing access to a facility, which incorporates the receptor body to an authorised user, when said validation has taken place.

39. A method as claimed in claim 38, wherein the processing means is interfaced with an external computer, which accepts enrolments to said database.

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